

--ABSTRACT OF THE DISCLOSURE

A method of improving 3D sound reproduction is described, in which virtual sound sources to be positioned behind a listener 10 are filtered using an HF-cut filter in order to remove distracting high-frequency components caused by incomplete transaural crosstalk cancellation. Sound sources placed in the rearward hemisphere of reference sphere 30 are filtered by an amount dependent on the position of the sound source in order to provide a smooth transition between the filtered and unfiltered hemispheres. HF-cut filtering is at a maximum when the sound source is placed directly behind the listener, and is progressively reduced as the forward hemisphere is approached. The invention offers an advantage in that virtual sound images may be placed more effectively behind the listener, given improved realism of 3D effects.--

ABSTRACT**A METHOD OF IMPROVING 3D SOUND REPRODUCTION**

5

A method of improving 3D sound reproduction is described, in which virtual sound sources to be positioned behind a listener 10 are filtered using an HF-cut filter in order to remove distracting high-frequency components caused by incomplete transaural crosstalk cancellation. Sound sources placed in the rearward hemisphere of reference sphere 30 are
10 filtered by an amount dependent on the position of the sound source in order to provide a smooth transition between the filtered and unfiltered hemispheres. HF-cut filtering is at a maximum when the sound source is placed directly behind the listener, and is progressively reduced as the forward hemisphere is approached. The invention offers an advantage in that virtual sound images may be placed more effectively behind the listener, giving improved
15 realism of 3D effects.

(Figure 6)